Electrical Data

Standard reed switches in GEMS level and flow switch units are hermetically-sealed, magnetically actuated, make-and-break type. Switches are SPST or SPDT, and rated 20 VA. See the chart below for maximum load characteristics of GEMS level switches.

GEMS Sensors Inc. would be pleased to run life tests on our level or flow switches with your specific load, and issue a report indicating the approximate number of cycles that can be expected. U.L. Recognized Units: Switches showing a U.L. listing are rated for 10 VA, 20 VA or 50 VA as shown below.

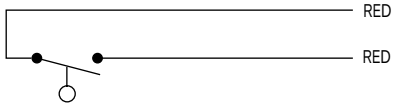
Switch Rating – Maximum Resistive Load

VA	Volts	Amps AC	Amps DC
10 General Use	0-50	.2	.13
	120	.08	N.A.
	100	N.A.	.1
20 Pilot Duty	0-30	.4	.3
	120	.17	.13
	240	.08	.06
50 General Use	0-50	0.5	0.5
	120	.4	.4
	240	.2	.2
100*	120	.8**	N.A.
	240	.4	N.A.

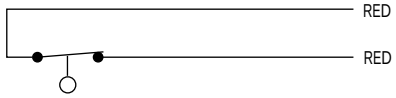
* Level switch units with 50 VA and 100 VA switches are not U.L. Recognized or CSA Approved.
** Limited to 50,000 operations.

Typical Wiring Diagrams

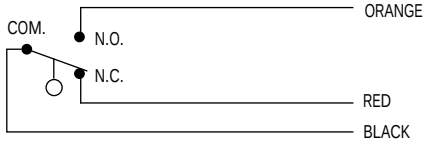
SPST, Normally Open - Dry



SPST, Normally Closed - Dry

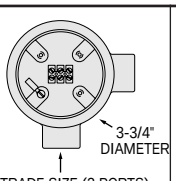
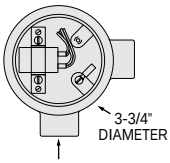
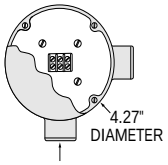


SPDT, Shown Dry



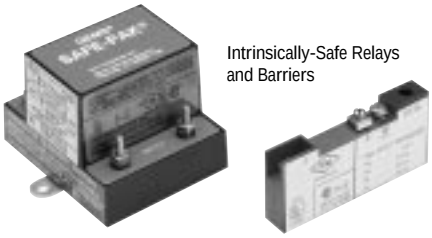
Explosion-Proofing and Intrinsic Safety

GEMS offers optional U.L. Approved, CSA Listed and FM Approved, explosion-proof junction boxes for many level switch models. Compatible level switches are indicated throughout this catalog by the small icon,

	Non-Explosion Proof J-Boxes					
	Alloy			Plastic		
	 1/2" TRADE SIZE (2 PORTS)		 1/2" TRADE SIZE (2 PORTS)	 1/2" NPT 2 PORTS		
Type	3-pin	7-pin	DPDT Relay	3-pin	7-pin	14-pin
Part Number	**113873**	**113877**	**75980**	**113850**	**113828**	**125070**

Junction boxes are U.L., CSA and FM approved for explosion proofing in Class I, Division 1, Groups B, C, D, E, F, G

For intrinsically-safe installations, nothing performs better than GEMS Zener Barriers and SAFE-PAK® Relays. These solid-state devices render the entire sensor circuit intrinsically-safe without explosion-proof enclosures. Latching version relays can control pump-up/pump-down operations. See Section N for more information.



Intrinsically-Safe Relays and Barriers